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AUTHOR Jain, Nemi C.
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ABSTRACT

The relationship between opinion leadership and certain characteristics of professionals performing linking roles in a research dissemination organization--the state Cooperative Extension Service of a land-grand university--were examined in this study. Five hypotheses were tested. The data were collected from a sample of 50 faculty members from seven academic departments of the university by personal interviews using a highly structured interview schedule and several self-administered instruments. All five hypotheses were confirmed. This study showed that the opinion leadership of professional linkers was positively related to their degree of information seeking both from within and outside the organization. (RB)

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COMMUNICATION CORRELATES OF OPINION LEADERSHIP OF PROFESSIONALS IN A RESEARCH DISSEMINATION ORGANIZATION

by

Nemi C. Jain
Department of Communication
University of Wisconsin-Milwaukee
Milwaukee, Wisconsin 53201

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COMMUNICATION CORRELATES OF OPINION LEADERSHIP OF PROFESSIONALS IN A RESEARCH DISSEMINATION ORGANIZATION

ABSTRACT

This study showed that the opinion leadership of professional linkers was positively related with their degree of information seeking from extradepartmental colleagues, time spent in reading technical periodicals, communication network centrality, and social contacts with organizational colleagues and was negatively related with their information seeking from intradepartmental colleagues.

INTRODUCTION

Opinion leadership is one of the most significant concepts for understanding communication and social influence in relatively large social systems. Although the concept originated in a study of political communications and voting decisions,[1] it has been found to be useful for understanding patterns of communication and influence in varied communication situations such as diffusion of innovations,[2] mass communication,[3] and communication in formal organizations.[4]

In their study of the 1940 Presidential campaign, Lazarsfeld, Berelson, and Gaudet found that candidate preferences and vote decisions were dominated by active personal influence and face-to-face communications rather than by the mass media.[5] Based on this study, they conjectured that ideas and information conveyed by the mass media, instead of impinging directly on the general public, often reach the attentive and concerned segment of the public first and then are transmitted by these "opinion leaders" to others who are less actively interested. This conception, formulated as a hypothesis of a "two-step flow of communication," brought to prominence the concept of opinion leadership in the field of communication. The crux of the concept of opinion leadership is that people are often influenced by others implicitly or explicitly, rather than directly by the mass media or other impersonal sources of information. The type of influence referred to by the concept is one which derives naturally from the informal relations that exist in ordinary living.

The two-step flow model implied that individuals active in information seeking were opinion leaders and that the remainder of the mass audience were passive. The activity of the opinion leaders was thought to provide the main thrust to initiate the communication flow. Common observations and some recent theoretical and empirical work in the area of diffusion of innovations[6] suggest that opinion leaders can be either active or passive, that they seek receivers, are actively sought by them, and that opinion leaders play both active and passive roles in most communication situations. It is being recognized that opinion leadership phenomenon operates in two ways: (1) <u>opinion-seeking</u> whereby the

communication process is initiated by a follower or receiver of the information, advice, or opinion, and (2) opinion-giving in which the communication process is initiated by the opinion leader or source of the information, advice, or opinion. The opinion leader is always the source of information, opinions, and advice, but the communication process can be initiated by either the leader or the follower.[7]

Despite the crucial role of opinion leadership communication in the functioning of large social systems, very little is known about the opinion leadership phenomenon in formal organizations. Much of the past theoretical and empirical work on the concept of opinion leadership has dealt with communication in informal social systems.[8] Considering the complexity of information needs of organizational members, the growing interdependence between organizations and their external environments, the existence of formal and informal interpersonal relationships among organizational members, and the high amount of face-to-face communication in formal organization, it seems logical that opinion leadership would be a significant phenomenon of communication in formal organizations. Besides intuition and common observations about the frequent occurence of opinion leadership contacts in organizations, there is growing evidence from organizational studies[9] for the existence of opinion leadership communication in organizations. However, our knowledge of the precise nature and correlates of opinion leadership in organizational settings is almost negligible. Much needs to be done in this direction.

RESEARCH PROBLEM AND HYPOTHESES

The present study was designed to examine the relationship between opinion leadership and certain communication characteristics of professionals performing linking roles in a research dissemination organization, the state Cooperative Extension Service of a land-grant university. The linking role, in context of the research dissemination process,[10] is defined as the function of facilitating communication between researchers and clients in a given field. Research dissemination organizations consist primarily of linking roles and are designed to facilitate communication and utilization of research results.

The theoretical and empirical work on opinion leadership suggests that opinion leadership is a communicative role which can be performed with varying effectiveness by individuals who have certain communication characteristics. Opinion leadership is not a "trait" which some people possess and others do not. It is a communicative function and people vary considerably in the degree to which they perform the function and in the effectiveness of performing it. Some persons are sought for information and advice more than others. Likewise, some individuals give information and advice to their colleagues more often than others. Assuming that opinion leadership is a continuous variable and that it varies considerably among organizational members, it is important to know the factors that affect the variation of opinion leadership phenomenon in organizations. Since opinion leadership is primarily a communicative role, we need to know the communication variables which affect the degree of opinion leadership of organizational members. Recognizing this need, the present study examined the relationship of opinion leadership of a linker with five communication characteristics:

(1) number of extradepartmental colleagues sought for information and advice, hereafter called "extradepartmental colleagues sought," (2) number of intradepartmental colleagues sought for information and advice, hereafter called "intradepartmental colleagues sought," (3) time spent reading technical periodicals, (4) communication network centrality, and (5) degree of social contacts with organizational colleagues, hereafter called "social contacts with organizational colleagues." The study examined opinion-seeking type of opinion leadership and therefore the opinion leadership was defined as the degree to which a person is sought for information and advice by fellow members of his social system.

Opinion leadership of a person depends, to a large extent, upon the degree of his communication with information sources outside of his social system and the degree of his involvement in the internal communication within his social system.[11] In order to serve as a channel of communication and influence between members of his social system and the environment outside it, an opinion leader must have both external and internal contacts. He must have contacts with information sources outside of his group or social system--information sources such as mass media, professional journals and professional colleagues outside his group. Also, an opinion leader must have interpersonal contacts with members of his group or social system; he must be accessible to his colleagues or must have communication contacts which he can use to transmit information and influence. But the high degree of internal contacts by an opinion leader does not mean that he must rely primarily upon his intragroup colleagues for information and advice. If a person seeks mostly his intragroup colleagues for information and advice the acquired information would be very similar to the one already possessed by his colleagues. Thus, he will not be sought for information and advice by his colleagues or will be sought rarely.

Considering the nature of internal and external communication environment of professionals performing linking roles in the research dissemination organization under study, and the past theoretical and empirical evidence on communication correlates of opinion leadership, the following hypotheses were formulated and tested:

Hypothesis 1: The number of extradepartmental colleagues sought by a linker for information and advice is positively related with his opinion leadership.

Hypothesis 2: The number of intradepartmental colleagues sought by a linker for information and advice is negatively related with his opinion leadership.

Hypothesis 3: The amount of time spent by a linker in reading technical periodicals is positively related with his opinion leadership.

Hypothesis 4: The communication network centrality of a linker is positively related with his opinion leadership.

Hypothesis 5: The degree of social contacts of a linker with his organizational colleagues is positively related with his opinion leadership.

METHOD

The data for the present study were part of a broader research project conducted in a large midwestern land-grant university. The data were collected from a sample of 50 faculty members from seven academic departments[12] of the university by personal interviews using a highly structured interview schedule and several self-administered instruments. The study sample included only those faculty members who were specifically assigned the linking role on part-time or full-time basis. Such a faculty member, often called Extension Specialist or Subject-Matter Specialist, holds a faculty appointment in an academic department of the university and devotes part or all of his time to extension work or linking role for the research dissemination unit of the land-grant university, the state Cooperative Extension Service.[13]

Operationalization of Variables

The hypotheses examined in this study included the common dependent variable of opinion leadership and five independent variables or communication characteristics: (1) extradepartmental colleagues sought, (2) intradepartmental colleagues sought, (3) time spent reading technical periodicals, (4) communication network centrality, and (5) social contacts with organizational colleagues. Besides these six variables, data were also collected on three control variables:[14] (1) organizational status--measured in terms of the academic rank held by a linker and the duration for which he has had that rank, (2) organizational experience--number of years for which a linker has served in the present organization, and (3) role commitment--percentage of work time devoted to performing linking role.

Opinion leadership of a linker was measured by a sociometric technique. Each respondent was asked to name about three people whom he seeks most frequently for information and advice on technical matters about extension work (or linking role). The names listed by each of the 50 respondents in the study were examined to see how many times a given respondent was mentioned. The total number of times a respondent was mentioned by other linkers in the study was used as his opinion leadership score.

The names listed by a respondent whom he seeks most frequently for information and advice were also examined for their organizational affiliation. These were classified into intradepartmental and extradepartmental colleagues depending on whether they belonged to the academic department of the respondent or not. All individuals who did not belong to the academic department of the respondent, including colleagues in other departments at the university, colleagues in other universities, and other individuals outside the university, were considered as his extradepartmental colleagues and the total number of such colleagues was used as his score for the variable of extradepartmental colleagues sought.

Time spent reading technical periodicals was measured by asking each respondent to indicate the number of hours he spends per week, on an average, in reading professional and non-professional journals or periodicals. The total number of hours listed by a respondent comprised his score for the variable of time spent reading technical periodicals.

Communication network centrality, defined as the degree to which an individual occupies the center position in the communication network of colleagues within the organization, is a sociometric indication of the amount of communication a person has with his organizational colleagues. It was measured by a sociometric technique. Each respondent was asked to list colleagues (within his department and in other departments of the university) with whom he communicated most frequently about technical matters related to linking role. The names listed by each of the 50 respondents in the study were examined to see how many times a given respondent was mentioned. The total number of times a respondent was mentioned by other linkers in the study was used as his communication network centrality score.

In order to measure the degree of social contacts of a linker with organizational colleagues, each respondent was asked to list individuals (belonging to his department and/or other departments) with whom he or his family met socially. The total number of colleagues listed by a respondent comprised his score for the variable of social contacts with organizational colleagues.

Statistical Analysis

Each of the five hypotheses in the study was tested by first computing partial correlation between the independent and dependent variables involved in the hypothesis while holding the three control variables (organizational status, organizational experience and role commitment) constant, and then by examining the statistical significance of obtained partial correlation coefficients. All hypotheses were tested by one-tailed tests, with a $p < .05$ level of probability accepted as an indication of statistical significance. Although Pearson product-moment correlation coefficients between the six communication characteristics and opinion leadership were also computed and are presented for comparison purposes, the hypotheses were tested by examining partial correlation coefficients.

RESULTS AND DISCUSSION

The correlation coefficients presented in Table 1 indicate that four communication characteristics--extradepartmental colleagues sought, time spent reading technical periodicals, communication network centrality, and social contacts with organizational colleagues--are positively related with opinion leadership. Although the magnitude of correlation coefficients of these four variables with opinion leadership varies, three of the four Pearson product-moment correlation coefficients and all four partial correlation coefficients are statistically significant. As predicted in the Hypothesis 2, the variable of intradepartmental colleagues sought is negatively correlated with opinion leadership and both zero-order and partial correlation coefficients are statistically significant. Since hypotheses were tested by examining the statistical significance of partial correlations rather than zero-order correlations, all five hypotheses are supported by the data.

TABLE 1

CORRELATION COEFFICIENTS BETWEEN COMMUNICATION CHARACTERISTICS AND OPINION LEADERSHIP OF LINKERS

(N = 50)

Communication Characteristics	Correlation with Opinion Leadership	
	Pearson Product-Moment Correlation	Partial Correlation[a]
Extradepartmental Colleagues Sought	.773*	.713*
Intradepartmental Colleagues Sought	-.451*	-.325*
Time Spent Reading Technical Periodicals	.198	.254*
Communication Network Centrality	.553*	.442*
Social Contacts with Organizational Colleagues	.385*	.300*

[a]Holding organizational status, organizational experience, and role commitment variables constant.

*Significant at the $p < .05$ level; one-tailed test.

In other words, this analysis showed that: (1) the number of extradepartmental colleagues sought by a linker for information and advice is positively related with his opinion leadership; (2) the number of intradepartmental colleagues sought by a linker for information and advice is negatively related with his opinion leadership; (3) the amount of time spent by a linker in reading technical periodicals is positively related with his opinion leadership; (4) communication network centrality of a linker is positively related with his opinion leadership; and (5) the degree of social contacts of a linker with his organizational colleagues is positively related with his opinion leadership.

These findings are consistent with the theoretical formulations and previous research findings concerning communication correlates of opinion leadership.[15] This study found that opinion leadership of a linker was positively related with his degree of external contacts. We found that linkers seeking mostly extradepartmental colleagues for information and advice were more likely to be opinion leaders than those seeking mostly intradepartmental colleagues. Also, we found that linkers spending more time in reading professional periodicals were more likely to be opinion leaders than those spending less time in reading technical periodicals. The present finding of a negative relationship between opinion leadership and the variable of number of intradepartmental colleagues sought lends further support to the proposition that opinion leaders depend heavily on extragroup rather than intragroup sources of information.

In terms of internal contacts, we found that opinion leadership was positively related with the variables of communication network centrality and social contacts with colleagues. This is consistent with previous research findings and theoretical formulations which suggest that opinion leaders are highly integrated or involved in the internal communication network of their social system.[16] This study examined the relationship of opinion leadership with two of the various types of internal communication networks existing in formal organizations.[17] Future research needs to examine the relationship of opinion leadership with other kinds of communication networks existing in formal organizations.

The present study, because of its correlational design, could not provide evidence about the cause-effect relationship among the variables found to be significantly related. It was not possible to prove, for instance, whether a high number of extradepartmental colleagues sought by a linker led to his higher opinion leadership or if the relationship worked the other way. Also, the present study could not control all possible extraneous factors that might have affected the relationship between communication characteristics and opinion leadership of linkers. In order to reduce the effect of extraneous factors such as subject matter and administration, the study used a relatively homogenous sample of specialists working within one of the five program areas of the Cooperative Extension Service. Although this sampling restriction reduced the generalizability of the findings of the study, it did seem to control some extraneous factors.

This study also attempted to statistically control the effects of three extraneous factors--organizational status, organizational experience, and role commitment--which might have affected the hypothesized relationships in the study. The high degree of consistency between zero-order correlations and partial correlations and the fact that the hypothesized relationships did hold true with and without statistical control of these three extraneous factors increased this author's confidence in the present findings. Future research on communication correlates of opinion leadership should use more complex designs that would control more extraneous variables and would provide evidence of cause-effect relationship between communication patterns and opinion leadership in formal organizations.

This study showed that there are systematic relationships between communication characteristics and opinion leadership of professionals performing linking roles in a research dissemination organization. The present findings are highly consistent with theoretical formulations and previous findings concerning opinion leadership in informal social systems. This indicates that there are similarities between informal and formal social systems in terms of the opinion leadership phenomenon and the variables that affect the phenomenon; this makes it possible to begin to formulate inductive generalizations concerning opinion leadership which would be applicable to all large social systems. The study demonstrated that opinion leadership is a fruitful area for understanding communication and social influence in formal organizations. Communication scholars could benefit greatly from pursuing further research on this thus-far neglected area of opinion leadership in organizations.

NOTES

[1]Paul F. Lazarsfeld, Bernard Berelson and Hazel Gaudet, The People's Choice (New York: Duell, Sloan, and Pearce, 1944).

[2]See, for example, Everett M. Rogers with F. Floyd Shoemaker, Communication of Innovations: A Cross-Cultural Approach (New York: The Free Press, 1971).

[3]See, for example, Joseph T. Klapper, The Effects of Mass Communication (New York: The Free Press, 1960); and Walter Weiss, "Effects of the Mass Media of Communication," in G. Lindzey and E. Aronson (eds.), Handbook of Social Psychology, 2nd ed. Vol. V (Reading, Mass.: Addison-Wesley, 1969), pp. 77-195.

[4]For instance, see Thomas J. Allen and Stephen I. Cohen, "Information Flow in Research and Development Laboratories," Administrative Science Quarterly, 14 (1969), 12-19.

[5]Lazarsfeld, et al., 1944.

[6]Rogers with Shoemaker, 1971, pp. 206-208.

[7]For discussion of this point, see Everett M. Rogers with Lynne Svennings Modernization Among Peasants: The Impact of Communication (New York: Holt, Rinehart and Winston, Inc., 1969), pp. 223-224.

[8]For instance, see Elihu Katz and Paul F. Lazarsfeld, Personal Influence (Glencoe, Ill.: The Free Press, 1955); Elihu Katz, "The Two-Step Flow of Communication: An Up-To-Date Report on an Hypothesis," Public Opinion Quarterly, 21 (1957), 61-78; James S. Coleman, Elihu Katz and Herbert Menzel, Medical Innovation: A Diffusion Study (New York: Bobbs-Merrill, 1966); Rogers with Svenning, 1969; Rogers with Shoemaker, 1971; and Virginia P. Richmond and James C. McCroskey, "Whose Opinion Do You Trust?" Journal of Communication, 21 (1975) 42-50.

[9]For instance, see Donald C. Pelz and Frank M. Andrews, Scientists in Organizations: Productive Climates for Research and Development (New York: John Wiley and Sons, Inc. 1966); Allen and Cohen, 1969; and C. G. Smith, "Consultation and Decision Processes in a Research and Development Laboratory," Administrative Science Quarterly 15 (1970), 203-215.

[10]Research dissemination is the process of communicating research results to practitioners and clients in a given field. In view of the tremendous communication gap between researchers and clients, various kinds of linking roles and research dissemination organizations have been created in various fields to facilitate communication between researchers and clients. For a detailed discussion of research dissemination process and the types of linking roles in various fields, see Ronald G. Havelock, Planning for Innovation Through Dissemination and Utilization of Knowledge (Ann Arbor, Mich.: Center for Research on Utilization of Scientific Knowledge, Institute for Social Research, University of Michigan, 1971).

[11]For evidence on this point, see Katz and Lazarsfeld, 1955; Katz, 1957; Coleman, et al., 1966; Allen and Cohen, 1969; Rogers with Svenning, 1969; and Rogers with Shoemaker, 1971.

[12]Nine of the eleven academic departments within the Agriculture program area, the largest of the five program areas within the Cooperative Extension Service, were selected for the study; two departments for a pilot study and seven for the main study. The study was restricted to one program area to keep the sample relatively homogenous with respect to the subject matter and administration and thus reduce the effect of these extraneous factors on the hypothesized relationships under study. All individuals from seven departments having four or more Specialists who have worked for at least one year as Specialists were included. This provided a sample of 50 respondents for the main study.

[13]Extension Specialist serves as a vital communication link between researchers within and outside the university on one hand and the county extension workers and local people on the other. For a discussion of the role of Extension Specialist, his organizational relationships with various units of a land-grant university and organizational structure of the Cooperative Extension Service, see Lincoln D. Kelsey and C. C. Hearne, Cooperative Extension Work (Ithaca, N.Y.: Comstock Publications Associates, 1963); and H. C. Sanders (ed.), The Cooperative Extension Service (Englewood Cliffs, N.J.: Prentice-Hall, 1966).

[14]Based on previous research on correlates of opinion leadership and communication behavior and the intuitive evidence about the factors that might affect opinion leadership and communication behavior of linkers, these three variables seemed to be the most relevant extraneous factors that might have affected the hypothesized relationships. Therefore, they were statistically controlled by partial correlation technique.

[15]Katz and Lazarsfeld, 1955; Coleman, et al., 1966; Allen and Cohen, 1969; Rogers with Shoemaker, 1971.

[16] Katz and Lazarsfeld, 1955; Katz, 1957; Coleman, et al., 1 and Cohen, 1969; Rogers with Shoemaker, 1971.

[17] For a discussion of different kinds of communication netwo communication roles in formal organizations, see Harold Guetzkow cation in Organizations," in J. G. March (ed.), Handbook of Orga (Chicago: Rand McNally, 1965), pp. 233-250; and W. Charles Redd cation [illegible] in the Organization (New York: Industrial Communicat Inc., 1972) pp. 483-499.